



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,751	02/21/2006	Franz-Josef Koerber	1034193000040	6674
21839	7590	10/01/2008	EXAMINER	
BUCHANAN, INGERSOLL & ROONEY PC			LUO, DAVID S	
POST OFFICE BOX 1404				
ALEXANDRIA, VA 22313-1404			ART UNIT	PAPER NUMBER
			2837	
			NOTIFICATION DATE	DELIVERY MODE
			10/01/2008	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/568,751	KOERBER, FRANZ-JOSEF	
	<b>Examiner</b>	<b>Art Unit</b>	
	DAVID S. LUO	2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 06/09/2008.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-22 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-22 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 09 June 2008 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date 06/10/08.

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

1. In view of the amendments to the drawings filed 06/09/2008, the objection to drawings has been withdrawn.
2. In view of the amendments to claims 8 and 16 filed 06/09/2008, the rejection under 35 U.S.C. 112 has been withdrawn.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claim 1, 5-6, and 13-14 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,693,247 to Byers.

As to claim 1, 5-6, and 13-14, Byers teaches an apparatus for actuating an electrical switching device (Byers fig. 1G and col. 2: lines 2-15) and having at least one moving contact piece (Byers fig. 1G: 124, 126 “movable contacts”), the at least one moving contact piece (Byers fig. 1G: 124, 126 “movable contacts” and col. 7: lines 9-17) being driven via a rotating shaft, wherein an electric motor having a rotating drive shaft, which can be coupled to the rotating shaft for the switching device by means of a gear mechanism, is provided for the purpose of driving the rotating shaft (Byers fig. 1A: & fig. 1G: and col. 7: lines 9-17 “the movable insulating panel is supported by and rotates around the common steel shaft 110 that supports the

Geneva gear 108. The insulating panel 122 has the drive slot 120 at one end and at the other end supports two electrical movable contacts 124, 126").

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-6, 11-14 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,693,247 to Byers, and further in view of U.S. Patent No. 4,623,859 to Erickson.

Regarding claim 2, Byers teaches an apparatus as claimed in claim 1. Byers does not teach a multi-pole switching devices. Erickson discloses the apparatus wherein, in the case of multi-pole switching devices, an electric motor is provided for the purpose of driving all of the switch poles (col. 6, lines 28-52).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Erickson into Byers as Byers suggests that the tap changer may be used for controlling the voltage of a single phase voltage regulator or of a three phase transformer (Byers col. 1: lines 65-67).

Regarding claim 3, Erickson discloses the apparatus wherein, in the case of multi-pole switching devices, a separate electric motor is provided for the purpose of driving each switch pole (col. 6, lines 28-52).

Regarding claims 4 and 12, Erickson discloses (Fig. 2) the apparatus wherein the central axis of the drive shaft 78 runs parallel to the central axis of the rotating shaft 88. This is accomplished when the rotating shaft is actuated.

Regarding claims 11 and 19-20 Erickson discloses (Fig. 2) at least one apparatus for actuating purposes (e.g. 156 or 70 or 88).

7. Claims 7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erickson.

Erickson discloses the apparatus wherein the lever mechanism is dimensioned such that a rotation of the drive shaft of the electric motor through a certain amount brings about a switching operation of the switching device, however, does not expressly disclose this amount being at most 180°. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the lever mechanism dimensioned such that a rotation of the drive shaft of the electric motor through at most 180° would bring about a switching operation of the switching device, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working range involves only 12 routine skill in the art. In re Aller, 105 USPQ 233

8. Claims 9-10, 17-18 and 21-22 rejected under 35 U. S.C. 103(a) as being unpatentable over Erickson as applied to claims 1-2 and 9 above, and further in view of USPN 6787937 (hereinafter Mody).

Regarding claims 9 and 17, Erickson discloses the limitations of claims 1-2 and 9 as noted above, however does not expressly disclose the gear mechanism being in the form of a tooth belt drive. At the time the claimed invention was made, it would have been obvious to a person of ordinary skill in the art to have the gear mechanism be in the form of a tooth belt drive. The motivation for this comes from the fact that Mody discloses a method of operating a remote operated circuit breaker panel and specifically discloses that the actuators could have been employed differently, such as through the use of a belt driver actuator or tooth belt drive (col. 4, lines 22-30). This would have allowed for a simplification of the design as well as an increase in efficiency.

Regarding claims 10, 18 and 21-22, it would have been obvious to one of ordinary skill in the art at the time the invention was made to operate the toothed belt drive with a transmission ratio of 1:1 to 1:6 or of 1:3.5, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working range involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

9. Applicant's arguments filed 06/09/2008 with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David S. Luo whose telephone number is (571)270-5251. The examiner can normally be reached on M-F 9AM-6PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Benson can be reached on (571)272-2227. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

David Luo  
Art Unit 2837

/BENTSU RO/

Primary Examiner, Art Unit 2837